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<110> Horvitz, H. Robert
      Ranganathan, Rajesh

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65                  70                  75                  80
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Gly Thr Gly Thr Leu Tyr Glu Arg Phe Arg Trp Ala Ile Thr Pro Gln
625 630 635 640
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35 40 45
Tyr Met Pro Leu Ser Val Ala Asp Lys Pro Leu Thr Leu Thr Val Ser
50 55 60
Thr Ser His Ser Ile Asp Pro Asn Glu Pro Ile Ala Ala Leu Gly Gly
65 70 75 80
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85 90 95
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Val Val Gly Tyr Ala Val Asp Leu Gly Asn Ile Trp Arg Phe Pro Ser
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145 150 155 160
Gly Gln Phe His Arg Ser Gly Cys Val Ser Ile Trp Arg Lys Val Cys
165 170 175
Pro Leu Phe Arg Gly Ile Gly Tyr Gly Ile Cys Cys Ile Cys Thr Phe
180 185 190
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<210> 7
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Tyr Met Pro Leu Ser Val Ala Asp Lys Pro Leu Thr Leu Thr Val Ser
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Thr Ser His Ser Ile Asp Pro Asn Glu Pro Ile Ala Ala Leu Gly Gly
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Leu Thr Pro Thr Lys Glu Gly Arg Val Ala Ala Leu Arg Arg Arg Ser
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Val Val Gly Tyr Ala Val Asp Leu Gly Asn Ile Trp Arg Phe Pro Ser
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Val Cys Tyr Lys His Gly Gly Gly Ala Phe Leu Ile Pro Tyr Phe Ile
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Met Leu Met Ile Gly Gly Leu Pro Met Phe Tyr Met Glu Leu Val Leu
145                 150                 155                 160
Gly Gln Phe His Arg Ser Gly Cys Val Ser Ile Trp Arg Lys Val Cys
                165                 170                 175
Pro Leu Phe Arg Gly Ile Gly Tyr Gly Ile Cys Cys Ile Cys Thr Phe
            180                 185                 190
Ile Ala Ile Phe Tyr Asn Ala Ile Ile Ala Gln Ala Val Tyr Phe Ala
        195                 200                 205
Ile Val Ser Leu Ser Lys Ile Trp Asp Ser Glu Val Pro Trp Ala Ser
    210                 215                 220
Cys Gly Asn Pro Trp Asn Thr Pro Arg Cys Ser Asp Asp Leu Asn Val
225                 230                 235                 240
Thr Ile Ser Arg Asn Gly Thr Pro Leu Thr Thr Pro Ser Glu Glu Tyr
                245                 250                 255
Tyr Leu Tyr Lys Val Leu Glu Val Gln Lys Ser Thr Gly Phe Asp Asp
            260                 265                 270
Leu Gly Gly Val Lys Thr Ser Met Ala Val Cys Leu Leu Ala Val Phe
        275                 280                 285
Ile Met Val Tyr Phe Ala Leu Trp Lys Gly Pro Gln Ser Ser Gly Lys
    290                 295                 300
Ile Val Trp Val Thr Ala Thr Ala Pro Tyr Ile Ile Leu Ser Ile Leu
305                 310                 315                 320
Leu Ile Arg Gly Leu Leu Leu Pro Gly Ala Lys Asn Gly Leu Tyr Tyr
                325                 330                 335
Tyr Val Thr Pro Asp Phe Glu Lys Leu Lys Asp Pro Ala Val Trp Ser
            340                 345                 350
Ala Ala Ala Thr Gln Ile Phe Phe Ser Leu Gly Pro Gly Phe Gly Val
        355                 360                 365
Leu Leu Ala Leu Ser Ser Tyr Asn Asp Phe Asn Asn Asn Cys Tyr Arg
    370                 375                 380
Asp Ala Val Thr Ile Ser Ile Ile Asn Cys Ala Thr Ser Phe Phe Ser
385                 390                 395                 400
Gly Cys Val Val Phe Ser Thr Leu Gly Tyr Met Ser Leu Leu Thr Asn
                405                 410                 415
Lys Pro Ile Asn Glu
            420
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<210> 10
<211> 630
<212> PRT

<213> Homo sapiens

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Met Glu Thr Thr Pro Leu Asn Ser Gln Lys Gln Leu Ser Ala Cys Glu
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Asp Gly Glu Asp Cys Gln Glu Asn Gly Val Leu Gln Lys Val Val Pro
20 25 30
Thr Pro Gly Asp Lys Val Glu Ser Gly Gln Ile Ser Asn Gly Tyr Ser
35 40 45
Ala Val Pro Ser Pro Gly Ala Gly Asp Asp Thr Arg His Ser Ile Pro
50 55 60
Ala Thr Thr Thr Thr Leu Val Ala Glu Leu His Gln Gly Glu Arg Glu
65 70 75 80
Thr Trp Gly Lys Lys Val Asp Phe Leu Leu Ser Val Ile Gly Tyr Ala
85 90 95
Val Asp Leu Gly Asn Val Trp Arg Phe Pro Tyr Ile Cys Tyr Gln Asn
100 105 110
Gly Gly Gly Ala Phe Leu Leu Pro Tyr Thr Ile Met Ala Ile Phe Gly
115 120 125
Gly Ile Pro Leu Phe Tyr Met Glu Leu Ala Leu Gly Gln Tyr His Arg
130 135 140
Asn Gly Cys Ile Ser Ile Trp Arg Lys Ile Cys Pro Ile Phe Lys Gly
145 150 155 160
Ile Gly Tyr Ala Ile Cys Ile Ile Ala Phe Tyr Ile Ala Ser Tyr Tyr
165 170 175
Asn Thr Ile Met Ala Trp Ala Leu Tyr Tyr Leu Ile Ser Ser Phe Thr
180 185 190
Asp Gln Leu Pro Trp Thr Ser Cys Lys Asn Ser Trp Asn Thr Gly Asn
195 200 205
Cys Thr Asn Tyr Phe Ser Glu Asp Asn Ile Thr Trp Thr Leu His Ser
210 215 220
Thr Ser Pro Ala Glu Glu Phe Tyr Thr Arg His Val Leu Gln Ile His
225 230 235 240
Arg Ser Lys Gly Leu Gln Asp Leu Gly Gly Ile Ser Trp Gln Leu Ala
245 250 255
Leu Cys Ile Met Leu Ile Phe Thr Val Ile Tyr Phe Ser Ile Trp Lys
260 265 270
Gly Val Lys Thr Ser Gly Lys Val Val Trp Val Thr Ala Thr Phe Pro
275 280 285
Tyr Ile Ile Leu Ser Val Leu Leu Val Arg Gly Ala Thr Leu Pro Gly
290 295 300
Ala Trp Arg Gly Val Leu Phe Tyr Leu Lys Pro Asn Trp Gln Lys Leu
305 310 315 320
Leu Glu Thr Gly Val Trp Ile Asp Ala Ala Ala Gln Ile Phe Phe Ser
325 330 335
Leu Gly Pro Gly Phe Gly Val Leu Leu Ala Phe Ala Ser Tyr Asn Lys
340 345 350
Phe Asn Asn Asn Cys Tyr Gln Asp Ala Leu Val Thr Ser Val Val Asn
355 360 365
Cys Met Thr Ser Phe Val Ser Gly Phe Val Ile Phe Thr Val Leu Gly
370 375 380
Tyr Met Ala Glu Met Arg Asn Glu Asp Val Ser Glu Val Ala Lys Asp
385 390 395 400
Ala Gly Pro Ser Leu Leu Phe Ile Thr Tyr Ala Glu Ala Ile Ala Asn
405 410 415
Met Pro Ala Ser Thr Phe Phe Ala Ile Ile Phe Phe Leu Met Leu Ile
420 425 430
Thr Leu Gly Leu Asp Ser Thr Phe Ala Gly Leu Glu Gly Val Ile Thr
435 440 445

Ala Val Leu Asp Glu Phe Pro His Val Trp Ala Lys Arg Arg Glu Arg
450 455 460
Phe Val Leu Ala Val Val Ile Thr Cys Phe Phe Gly Ser Leu Val Thr
465 470 475 480
Leu Thr Phe Gly Gly Ala Tyr Val Val Lys Leu Leu Glu Glu Tyr Ala
485 490 495
Thr Gly Pro Ala Val Leu Thr Val Ala Leu Ile Glu Ala Val Ala Val
500 505 510
Ser Trp Phe Tyr Gly Ile Thr Gln Phe Cys Arg Asp Val Lys Glu Met
515 520 525
Leu Gly Phe Ser Pro Gly Trp Phe Trp Arg Ile Cys Trp Val Ala Ile
530 535 540
Ser Pro Leu Phe Leu Leu Phe Ile Ile Cys Ser Phe Leu Met Ser Pro
545 550 555 560
Pro Gln Leu Arg Leu Phe Gln Tyr Asn Tyr Pro Tyr Trp Ser Ile Ile
565 570 575
Leu Gly Tyr Cys Ile Gly Thr Ser Ser Phe Ile Cys Ile Pro Thr Tyr
580 585 590
Ile Ala Tyr Arg Leu Ile Ile Thr Pro Gly Thr Phe Lys Glu Arg Ile
595 600 605
Ile Lys Ser Ile Thr Pro Glu Thr Pro Thr Glu Ile Pro Cys Gly Asp
610 615 620
Ile Arg Leu Asn Ala Val
625 630

<210> 11
<211> 622
<212> PRT
<213> Drosophila melanogaster

<400> 11
Met Asp Arg Ser Gly Ser Ser Asp Phe Ala Gly Ala Ala Ala Thr Thr
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Gly Arg Ser Asn Pro Ala Pro Trp Ser Asp Asp Lys Glu Ser Pro Asn
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Asn Glu Asp Asp Ser Asn Glu Asp Asp Gly Asp His Thr Thr Pro Ala
35 40 45
Lys Val Thr Asp Pro Leu Ala Pro Lys Leu Ala Asn Asn Glu Arg Ile
50 55 60
Leu Val Val Ser Val Thr Glu Arg Thr Arg Glu Thr Trp Gly Gln Lys
65 70 75 80
Ala Glu Phe Leu Leu Ala Val Ile Gly Phe Ala Val Asp Leu Gly Asn
85 90 95
Val Trp Arg Phe Pro Tyr Ile Cys Tyr Gln Asn Gly Gly Gly Ala Phe
100 105 110
Leu Val Pro Tyr Cys Leu Phe Leu Ile Phe Gly Gly Leu Pro Leu Phe
115 120 125
Tyr Met Glu Leu Ala Leu Gly Gln Phe His Arg Cys Gly Cys Leu Ser
130 135 140
Ile Trp Lys Arg Ile Cys Pro Ala Leu Lys Gly Val Gly Tyr Ala Ile
145 150 155 160
Cys Leu Ile Asp Ile Tyr Met Gly Met Tyr Tyr Asn Thr Ile Ile Gly
165 170 175
Trp Ala Val Tyr Tyr Leu Phe Ala Ser Phe Thr Ser Lys Leu Pro Trp
180 185 190
Thr Ser Cys Asp Asn Pro Trp Asn Thr Glu Asn Cys Met Gln Val Thr
195 200 205
Ser Glu Asn Phe Thr Glu Leu Ala Thr Ser Pro Ala Lys Glu Phe Phe

210 215 220
Glu Arg Lys Val Leu Glu Ser Tyr Lys Gly Asn Gly Leu Asp Phe Met
225 230 235 240
Gly Pro Val Lys Pro Thr Leu Ala Leu Cys Val Phe Gly Val Phe Val
245 250 255
Leu Val Tyr Phe Ser Leu Trp Lys Gly Val Arg Ser Ala Gly Lys Val
260 265 270
Val Trp Val Thr Ala Leu Ala Pro Tyr Val Val Leu Ile Ile Leu Leu
275 280 285
Val Arg Gly Val Ser Leu Pro Gly Ala Asp Glu Gly Ile Lys Tyr Tyr
290 295 300
Leu Thr Pro Glu Trp His Lys Leu Lys Asn Ser Lys Val Trp Ile Asp
305 310 315 320
Ala Ala Ser Gln Ile Phe Phe Ser Leu Gly Pro Gly Phe Gly Thr Leu
325 330 335
Leu Ala Leu Ser Ser Tyr Asn Lys Phe Asn Asn Asn Cys Tyr Arg Asp
340 345 350
Ala Leu Ile Thr Ser Ser Ile Asn Cys Leu Thr Ser Phe Leu Ala Gly
355 360 365
Phe Val Ile Phe Ser Val Leu Gly Tyr Met Ala Tyr Val Gln Lys Thr
370 375 380
Ser Ile Asp Lys Val Gly Leu Glu Gly Pro Gly Leu Val Phe Ile Val
385 390 395 400
Tyr Pro Glu Ala Ile Ala Thr Met Ser Gly Ser Val Phe Trp Ser Ile
405 410 415
Ile Phe Phe Leu Met Leu Ile Thr Leu Gly Leu Asp Ser Thr Phe Gly
420 425 430
Gly Leu Glu Ala Met Ile Thr Ala Leu Cys Asp Glu Tyr Pro Arg Val
435 440 445
Ile Gly Arg Arg Arg Glu Leu Phe Val Leu Leu Leu Ala Phe Ile
450 455 460
Phe Leu Cys Ala Leu Pro Thr Met Thr Tyr Gly Gly Val Val Leu Val
465 470 475 480
Asn Phe Leu Asn Val Tyr Gly Pro Gly Leu Ala Ile Leu Phe Val Val
485 490 495
Phe Val Glu Ala Ala Gly Val Phe Trp Phe Tyr Gly Val Asp Arg Phe
500 505 510
Ser Ser Asp Val Glu Gln Met Leu Gly Ser Lys Pro Gly Leu Phe Trp
515 520 525
Arg Ile Cys Trp Thr Tyr Ile Ser Pro Val Phe Leu Leu Thr Ile Phe
530 535 540
Ile Phe Ser Ile Met Gly Tyr Lys Glu Met Leu Gly Glu Glu Tyr Tyr
545 550 555 560
Tyr Pro Asp Trp Ser Tyr Gln Val Gly Trp Ala Val Thr Cys Ser Ser
565 570 575
Val Leu Cys Ile Pro Met Tyr Ile Ile Tyr Lys Phe Phe Phe Ala Ser
580 585 590
Lys Gly Gly Cys Arg Gln Arg Leu Gln Glu Ser Phe Gln Pro Glu Asp
595 600 605
Asn Cys Gly Ser Val Val Pro Gly Gln Gln Gly Thr Ser Val
610 615 620